

Table A-3. Total (Federal plus company and other) funds for industrial R&D performance in the U.S., by industry and size of company: 1997–2000

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Industry and size of company	NAICS codes	1997	1998	1999 ¹	2000
		[In millions of dollars]			
Distribution by industry:					
All industries ²	21–23, 31–33, 42, 44–81	157,539	169,180	182,711	199,539
Manufacturing	31–33	--	--	116,921	124,078
Food.....	311	1,244	1,305	1,132	(D)
Beverage and tobacco products.....	312	447	384	(D)	417
Textiles, apparel, and leather.....	313–16	378	399	334	(D)
Wood products.....	321	26	60	70	105
Paper, printing and support activities.....	322, 323	(D)	(D)	(D)	(D)
Petroleum and coal products.....	324	(D)	1,395	615	(D)
Chemicals.....	325	16,492	18,969	20,246	20,918
Basic chemicals.....	3251	1,859	3,610	2,746	2,080
Resin, synthetic rubber, fibers, and filament.....	3252	(D)	(D)	(D)	2,852
Pharmaceuticals and medicines.....	3254	(D)	(D)	(D)	(D)
Other chemicals.....	325 (minus 3251–52, 3254)	(D)	(D)	(D)	(D)
Plastics and rubber products.....	326	1,484	1,625	1,785	(D)
Nonmetallic mineral products.....	327	548	558	(D)	846
Primary metals.....	331	992	(D)	470	624
Fabricated metal products.....	332	1,906	1,781	1,655	1,672
Machinery.....	333	5,610	(D)	6,057	6,580
Computer and electronic products.....	334	33,988	38,209	35,932	45,097
Computers and peripheral equipment.....	3341	(D)	(D)	(D)	5,162
Communications equipment.....	3342	2,930	8,974	6,003	11,616
Semiconductor and other electronic components.....	3344	(D)	9,131	10,701	12,894
Navigational, measuring, electromedical, and control instruments.....	3345	8,030	11,232	14,337	15,116
Other computer and electronic products.....	334 (minus 3341–42, 3344–45)	543	(D)	(D)	310
Electrical equipment, appliances, and components.....	335	2,741	2,280	(D)	(D)
Transportation equipment.....	336	34,422	31,359	33,965	30,085
Motor vehicles, trailers, and parts.....	3361–63	(D)	(D)	(D)	(D)
Aerospace products and parts.....	3364	17,865	16,359	14,425	10,319
Other transportation equipment.....	336 (minus 3361–64)	(D)	(D)	(D)	(D)
Furniture and related products.....	337	240	211	248	284
Miscellaneous manufacturing.....	339	3,457	(D)	3,851	4,206
Medical equipment and supplies.....	3391	3,041	(D)	(D)	(D)
Other miscellaneous manufacturing.....	339 (minus 3391)	416	525	(D)	(D)
Other manufacturing ³	31–33 (minus 311–16, 321–27, 331–37, 339) (S)	23	(D)	--	--
Small manufacturing companies ⁴	Fewer than 50 employees	2,509	2,316	3,019	2,643

See explanatory information and SOURCE at end of table.

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		[In millions of dollars]			
Distribution by industry:					
Nonmanufacturing.....	21–23, 42, 44–81	--	--	65,790	75,461
Mining, extraction, and support activities.....	21	(D)	(D)	(D)	823
Utilities.....	22	(D)	(D)	142	(D)
Construction.....	23	241	(D)	691	(D)
Trade.....	42, 44, 45	(D)	16,492	19,616	24,959
Transportation and warehousing.....	48, 49	(D)	253	460	(D)
Information.....	51	10,595	13,581	15,389	16,830
Publishing.....	511	7,582	9,589	11,302	13,004
Newspaper, periodical, book, and database.....	5111	340	334	371	365
Software.....	5112	7,242	9,255	10,931	12,639
Broadcasting and telecommunications.....	513	(D)	(D)	(D) (S)	1,407
Radio and television broadcasting.....	5131	(D)	(D)	(D)	(D)
Telecommunications.....	5133	(D)	(D)	(D)	(D)
Other broadcasting and telecommunications.....	513 (minus 5131, 5133)	12	(D)	31	59
Other information.....	51 (minus 511, 513)	(D)	(D)	(D)	2,420
Finance, insurance, and real estate.....	52, 53	(D)	(D)	(D)	4,025
Professional, scientific, and technical services....	54	12,999	16,168	18,994	22,577
Architectural, engineering, and related services.....	5413	2,210	3,180	3,580	3,381
Computer systems design and related services.....	5415	(D)	(D)	(D)	5,169
Scientific R&D services.....	5417	7,023	9,062	10,470	12,892
Other professional, scientific, and technical services.....	54 (minus 5413, 5415, 5417)	(D)	(D)	(D)	1,135
Management of companies and enterprises.....	55	309	417	(D)	49
Health care services.....	621–23	639	617	642	536
Other nonmanufacturing ³	56, 61, 624, 71, 72, 81	953	2,124	(D)	731
Small nonmanufacturing companies ⁴	Fewer than 15 employees	(D)	2,849	5,203	4,276

See explanatory information and SOURCE at end of table.

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		[In millions of dollars]			
Distribution by size of company: [Number of employees]					
Total.....	(na)	157,539	169,180	182,711	199,539
5 to 24.....	(na)	3,304	4,943	7,004	6,862
25 to 49.....	(na)	3,028	3,323	4,750	5,008
50 to 99.....	(na)	4,251	6,415	7,225	7,259
100 to 249.....	(na)	7,176	8,681	7,213	9,020
250 to 499.....	(na)	6,304	6,814	7,892	7,479
500 to 999.....	(na)	4,966	5,495	7,032	9,074
1,000 to 4,999.....	(na)	19,590	21,525	24,840	30,636
5,000 to 9,999.....	(na)	14,266	14,053	16,376	16,768
10,000 to 24,999.....	(na)	21,510	24,876	24,922	28,653
25,000 or more.....	(na)	73,144	73,055	75,457	78,779

¹ Some statistics for 1999 have been revised since originally published.

² The totals for "all industries" prior to 1999 are identical to corresponding totals previously published using the Standard Industrial Classification (SIC) system. Also, pre-1999 detail published using the North American Industry Classification System (NAICS) may not add to the totals. See the 'NOTES' below.

³ Manufacturing companies in the 1997 and 1998 samples that could not be classified with a NAICS code are included in "other manufacturing;" nonmanufacturing companies that could not be classified with a NAICS code are included in "other nonmanufacturing."

⁴ The frame from which the statistical sample was selected was divided into two partitions based on total company employment. In the manufacturing sector, companies with employment of 50 or more were included in the large company partition. In the nonmanufacturing sector, companies with employment of 15 or more were included in the large company partition. Companies in the respective sectors with employment below these values, but with at least 5 employees, were included in the small company partition. The purpose of partitioning the sample this way was to reduce the variability in industry estimates largely attributed to the random year-to-year selection of small companies by industry and the high sampling weights that sometimes were assigned to them. Because of this, detailed industry statistics were possible only from the large company partition; detailed industry statistics from the small company partition were not possible. Statistics from the small company partition are shown separately and are included in manufacturing, nonmanufacturing, and all industries totals. For more information, see "frame creation" and "sample selection" in the technical notes in Section B.

KEY: (D) = Data have been withheld to avoid disclosing operations of individual companies.

(S) = Indicates imputation of more than 50 percent.

(--) = Indicates data not collected.

(na) = Not applicable.

NOTES: Starting with the 1999 survey, estimates are based on the North American Industry Classification System (NAICS). In prior years, estimates were based on the Standard Industrial Classification (SIC) system. For this table, companies in the 1997 and 1998 surveys were assigned NAICS industry codes based on their SIC industry codes. Consequently, the estimates for 1997 and 1998 in this table are not necessarily representative of the NAICS categories of industries in those years. They are included for comparison purposes only.

The R&D in this table is the industrial R&D performed within company facilities funded from all sources. The funds are the company's own; funds from outside organizations such as other companies, research institutions, universities and colleges, nonprofit organizations, and State governments; and funds from the Federal Government. Excluded from this table are R&D not performed within the company (e.g., R&D contracted out to other organizations) and R&D not performed in the U.S. (e.g., R&D not performed on U.S. soil by foreign subsidiaries or other foreign organizations).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2000